Applicant : Thomas Mueller
Serial No. : 10/526,097
Filed : September 7, 2005
Page : 4 of 11

Attorney's Docket No.: 14603-012US1
Client Ref.: P2002,0713USN

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF THE CLAIMS:

1. (Currently Amended) A method for use with an integrated circuit that is light-sensitive, the method comprising:

applying different wavelengths of light to the integrated circuit, the integrated circuit producing output signals in response to the different wavelengths of light;

measuring the output signals to obtain measured values;

comparing the measured values to setpoint values that correspond to the different wavelengths of light;

obtaining correction values for the different wavelengths of light, the correction values being based on comparison of the measured values to the setpoint values; and

storing the correction values on the integrated circuit;

wherein the measured values define a sensitivity curve; and

wherein a smallest interval between two of the different wavelengths on the sensitivity curve is smaller than an interval between a local sensitivity maximum and a local sensitivity minimum on the sensitivity curve.

Applicant : Thomas Mueller
Serial No. : 10/526,097
Filed : September 7, 2005
Page : 5 of 11

Attorney's Docket No.: 14603-012US1
Client Ref.: P2002,0713USN

2. (Previously Presented) The method of claim 1, wherein the integrated circuit is on a semiconductor substrate; and

the method is performed using a testing card.

3. (Previously Presented) The method of claim 1, wherein the different wavelengths of light are applied via light-emitting diodes.

4. (Cancelled)

5. (Currently Amended) The method of claim 5 [[4]], further comprising:

obtaining the sensitivity curve by interpolating between the measured values; and

storing information about the sensitivity curve on the integrated circuit.

6. (Previously Presented) The method of claim 1, wherein the integrated circuit comprises one or more photodiodes.

7. (Previously Presented) The method of claim 1, wherein the correction values are stored using Zener diodes on the integrated circuit.

8. (Currently Amended) A semiconductor chip comprising:

Applicant : Thomas Mueller
Serial No. : 10/526,097
Filed : September 7, 2005
Page : 6 of 11

Attorney's Docket No.: 14603-012US1
Client Ref.: P2002,0713USN

a light-sensitive integrated circuit that stores information for use in correcting a

wavelength-dependent output signal of the light-sensitive integrated circuit;

wherein the light-sensitive integrated circuit has a wavelength-dependent sensitivity; and

wherein a smallest interval between two measured wavelengths of the wavelength-

dependent output signal is smaller than an interval between a local sensitivity maximum and a

local sensitivity minimum on a sensitivity curve defined, in part, by the two measured

wavelengths.

9. (Previously Presented) The semiconductor chip of claim 8, further comprising:

a temperature sensor for measuring a temperature of an external light source that

illuminates the light-sensitive integrated circuit, the light-sensitive integrated circuit producing

the wavelength-dependent output signal in response to light from the external light source;

wherein the light-sensitive integrated circuit stores correction data that is derived using

the temperature of the external light source, the correction data for use in correcting the

wavelength-dependent output signal.

10. (Currently Amended) A method for use with an integrated circuit that is light

sensitive, the method comprising:

illuminating the integrated circuit using an external light source, the integrated circuit

producing an output signal in response to light from the external light source;

Applicant : Thomas Mueller
Serial No. : 10/526,097
Filed : September 7, 2005
Page : 7 of 11

Attorney's Docket No.: 14603-012US1
Client Ref.: P2002,0713USN

providing, to the integrated circuit, information about the wavelength of the light from the external light source; and

using the information to correct the output signal;

wherein the integrated circuit has a sensitivity that is wavelength-dependent; and

wherein a smallest interval between two measured wavelengths of the output signal is smaller than an interval between a local sensitivity maximum and a local sensitivity minimum on a sensitivity curve defined, in part, by the two measured wavelengths.

11. (Previously Presented) The method of claim 10, further comprising:

measuring a temperature of the external light source; and

correcting the information about the wavelength of the light using the temperature;

wherein the output signal is corrected using corrected information about the wavelength of the light.

12. (Previously Presented) The method of claim 10, wherein using the information to correct the output signal comprises:

obtaining a correction value that corresponds to the wavelength of light; and

applying the correction value to the output signal.

13. (Previously Presented) The method of claim 12, wherein the correction value comprises a difference between a setpoint value and the output signal at the wavelength.

Applicant : Thomas Mueller
Serial No. : 10/526,097
Filed : September 7, 2005
Page : 8 of 11

Attorney's Docket No.: 14603-012US1
Client Ref.: P2002,0713USN

14. (Previously Presented) The semiconductor chip of claim 8, further comprising:

a semiconductor substrate on which the light-sensitive integrated circuit is mounted.

15. (Previously Presented) The semiconductor chip of claim 8, wherein the light-

sensitive integrated circuit comprises one or more photodiodes for receiving different

wavelengths of light.

16. (Previously Presented) The semiconductor chip of claim 8, further comprising one

or more Zener diodes for use in storing the information.